

# Work Order ID 91325

October-04-12 1:12:47 PM

**\*91325\***

Page 1

Item ID: D3672-1

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Phenolic Washer

*300*  
~~**\*200\***~~  
**\*200\***

Start Date: 04/10/2012 Start Qty: 200.00

Cust Item ID:

Required Date: 19/10/2012 Req'd Qty: 200.00

Customer:

Reference:

Approvals:

Process Plan:

*ML5*

Date: 12-10-04 Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
<b>Draw Nbr</b>	<b>Revision Nbr</b>								
D3672	Rev C								
100		0.00							
<b>*100*</b>	PURCHASING								
Purchasing	Memo	0.00							
Purchasing	Issue P/O: <i>18076</i>								
	Purchase Part Number: MM .437 OD X .210 ID X .031 +/- .002								
	Supplier: HASKINS INDUSTRIAL								
	Certificate of conformity is required								
110		0.00							
<b>*110*</b>	Receive & Inspect for Damage & Mat'l Certs								
Packaging	Memo	0.00							
Packaging	Ensure certificate of conformity is attached								
120		0.00							
<b>*120*</b>	QC6- Inspect dimensions to drawing								
QC	Memo	0.00							
Quality Control									

*CZ 12/10/04 (500)*

*P44/12 (500)*

*DAS 16 11/10/15*

*(500)*

*QSP019*

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____				<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		<b>AGAINST DEPARTMENT/PROCESS</b>  <div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/>            Machining <input type="checkbox"/>            Thermoforming <input type="checkbox"/>            Large Fab <input type="checkbox"/> </div> <div>           Crosstube <input type="checkbox"/>            Small Fab <input type="checkbox"/>            Finishing <input type="checkbox"/>            Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/>            Prod. Eng. Coord. <input type="checkbox"/>            Rec/Store/Packaging <input type="checkbox"/>            Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/>            Quality <input type="checkbox"/>            Other <input type="checkbox"/> </div> </div>					
<b>Root Cause</b>	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											
<b>FAULT CATEGORY</b>											
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge  <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other		

**Work Order ID 91325**

October-04-12 1:12:47 PM

**\*91325\***

Page 2

Item ID: D3672-1

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Phenolic Washer

Start Date: 04/10/2012 Start Qty: 200.00

**\*200\***

Cust Item ID:

Required Date: 19/10/2012 Req'd Qty: 200.00

**\*200\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursTool ID Tool # Plan  
Code Accept Reject Reject Insp.  
Qty Qty Number Stamp

130

Identify as per dwg &amp; Stock Location

S61

0.00

**\*130\***

Packaging

Memo

0.00

500x

SP  
12-10-15

Packaging

140

QC21- Final Inspection - Work Order Release

0.00

**\*140\***

QC

Memo

0.00

Quality Control

12/10/15

12-10-15

NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____				<b>DISPOSITION</b>  <div style="display: flex; justify-content: space-around;"> <span>Rework <input type="checkbox"/></span> <span>Skid-tube <input type="checkbox"/></span> <span>Crosstube <input type="checkbox"/></span> <span>Water Jet <input type="checkbox"/></span> <span>Engineering <input type="checkbox"/></span> </div> <div style="display: flex; justify-content: space-around;"> <span>Scrap <input type="checkbox"/></span> <span>Machining <input type="checkbox"/></span> <span>Small Fab <input type="checkbox"/></span> <span>Prod. Eng. Coord. <input type="checkbox"/></span> <span>Quality <input type="checkbox"/></span> </div> <div style="display: flex; justify-content: space-around;"> <span>Use-as-is <input type="checkbox"/></span> <span>Thermoforming <input type="checkbox"/></span> <span>Finishing <input type="checkbox"/></span> <span>Rec/Store/Packaging <input type="checkbox"/></span> <span>Other <input type="checkbox"/></span> </div> <div style="display: flex; justify-content: space-around;"> <span>Work Order Update <input type="checkbox"/></span> <span>Large Fab <input type="checkbox"/></span> <span>Composite <input type="checkbox"/></span> <span>Supplier <input type="checkbox"/></span> </div>		<b>AGAINST DEPARTMENT/PROCESS</b>					
<b>Root Cause</b>	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											

FAULT CATEGORY												
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other	

# Picklist Print

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Page 1

Work Order ID: 91325

\*91325\*

Parent Item: D3672-1

\*D3672-1\*

Parent Item Name: Phenolic Washer

Start Date: 04/10/2012

Required Date: 19/10/2012

Start Qty: 200.00

Required Qty: 200.00

Comments: IPP Rev:A New Issue 07-09-09 JLM Verified By:EC  
IPP Rev:B ECN 1056 07-11-13 DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3672-1P		Purchased	No			110	Each	0.0000	1	200			
*D3672-1P*									**			10/4/12	500
WASHER													

NCR: Yes / No

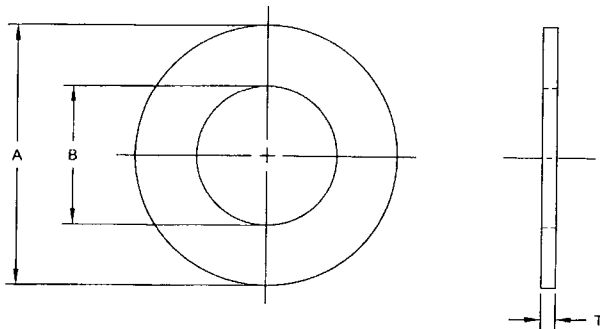
**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____				<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		<b>AGAINST DEPARTMENT/PROCESS</b>  <div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/>            Machining <input type="checkbox"/>            Thermoforming <input type="checkbox"/>            Large Fab <input type="checkbox"/> </div> <div>           Crosstube <input type="checkbox"/>            Small Fab <input type="checkbox"/>            Finishing <input type="checkbox"/>            Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/>            Prod. Eng. Coord. <input type="checkbox"/>            Rec/Store/Packaging <input type="checkbox"/>            Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/>            Quality <input type="checkbox"/>            Other <input type="checkbox"/> </div> </div>					
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# SPECIFICATION CONTROL DRAWING



**D3672-X PHENOLIC WASHER**

Dart P/N	A (IN)	B (IN)	T (IN)	SUPPLIER P/N	REPLACES
D3672-1	0.437	0.210	0.031	MM .437OD x .210ID x .031 +/- .002 PHENOLIC FLAT WASHER	NAS1515H3L
D3672-3	0.500	0.267	0.031	MM .500OD x .267ID x .031 +/- .002 PHENOLIC FLAT WASHER	NAS1515H4L
D3672-5	0.562	0.326	0.062	MM .562OD x .326ID x .062 +/- .002 PHENOLIC FLAT WASHER	NAS1515H5
D3672-7	0.562	0.328	0.031	MM .562OD x .328ID x .031 +/- .002 PHENOLIC FLAT WASHER	NAS1515H5L
D3672-9	0.625	0.390	0.031	MM .625OD x .390ID x .031 +/- .002 PHENOLIC FLAT WASHER	NAS1515H6L
D3672-11	0.750	0.453	0.031	MM .750OD x .453ID x .031 +/- .002 PHENOLIC FLAT WASHER	NAS1515H7L
D3672-13	0.875	0.515	0.031	MM .875OD x .515ID x .031 +/- .002 PHENOLIC FLAT WASHER	NAS1515H8L



## NOTES:

- 1) MATERIAL: PHENOLIC. PURCHASE HASKINS INDUSTRIAL INC. P/N PER TABLE (IN QUANTITIES OF 1000)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER NO. 91325 MJS  
12-10-04

RELEASED  
2009-12-14

DESIGN	DC	DART AEROSPACE LTD	CP	09.11.04
DRAWN	JP	HAWKESBURY, ONTARIO, CANADA	DC	07.10.09
CHECKED	JP	DRAWING NO. D3672	DC	07.08.28
MFG. APPR.	JP	TITLE	BY	DATE
APPROVED	JP	PHENOLIC WASHER		
DE APPR.	JP			
DATE	09.11.04			

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Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO18076

Purchase Order Date 10/04/12

PO Print Date 10/09/12

Page Number 1 of 2

Order From :

VC-HAS001

HASKINS INDUSTRIAL  
5-52 ANTARES DRIVE  
NEPEAN, ON K2E 7Z1  
CA

Contact Name

Vendor Phone

613 723 8800

Vendor Fax

613 723 8806

Vendor Account Nbr

Buyer

Chantal Lavoie

Requisition Nbr

10127-2607

Tax Resale Nbr

Net 30

Terms

Currency

CAD

FOB

Destination-Collect

Ship To :

DART AEROSPACE LTD

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**FAXED**  
10/12/12

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	CP-69H	Clip	10/10/12 Yes	200.00 Each	Dicom	\$0.0833	\$16.66
2	D3672-1P	WASHER	10/10/12 Yes	500.00 Each	Dicom	\$0.3229	\$161.45
		Special Inst:	AS PER DWG D2692 REV. A B91240				
3	320-017	O-Ring	10/10/12 Yes	100.00 Each	Dicom	\$0.4828	\$48.28
		Special Inst:	AS PER DWG D3672 REV. C B91325				
4		604-030 #10506 PITBULL CLAMP	10/10/12 Yes	1.00 Each	Dicom	\$62.2000	\$62.20
		Special Inst:	AS PER DWG D4654 REV. PA2 B91370				

No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required - YES NO

Change Nbr: 3

Change Date: 10/09/12



HASKINS INDUSTRIAL INC.  
5-52 ANTARES DRIVE

\*\* PACKING SLIP \*\*

Order # 1246463.0

NEPEAN, ONTARIO K2E 7Z1  
TEL (613)723-8800 FAX (613)723-8806

Order Date 10/09/12

Page 1 of 1

Sold To: DART AEROSPACE LTD.  
1270 ABERDEEN STREET  
HAWKESBURY  
ON  
K6A 1K7

Ship To: DART AEROSPACE LTD.  
1270 ABERDEEN STREET  
HAWKESBURY  
ON  
K6A 1K7

Cust Phone #		Warehouse		F.O.B.		Taken By	
		OTTAWA		DEST		Sylvie 613-723-8800	
Cust #	Customer P/O #	Required	Orig Order	Slsm	Ship Via	Terms	
05168	18076	10/10/12	1246463.00	PL	DICOM	NET 30	
Ln#	Bin #	Order UM	Ship	B/O Product	Description		
1		100 C	0	100 SP1X100	320-017 .676ID	O-RING	
2 *		1 EA	0	1 SO1X1	604-030 #10506	PITBULL CLAMP 4/PKG	
3 *		1 EA	0	1 SO1X1	604-087 #26065	PITBULL CLAMP 6/PKG	
4		200 C	0	200 SP1X100	CP-69H COTTER	PIN	
5 CAB810		500 EA	500	MMS-D3672-1	.437 X .210 X .031 +/- .002 WASHER, PHENO		
6 *		3 EA	0	3 SO1X1	124-120 10-24	SPRL PNT TAP RED	
7		5 EA	0	5 SGS1X1	36858 1/2 ZAPC	Z-CARB ENDMILL	

PLEASE NOTE:

1. NO RETURNS WITHOUT PRIOR AUTHORIZATION
2. ALL SHORTAGE CLAIMS MUST BE WITHIN 10 DAYS
3. BO CODE: BO = QTY NOT SHIPPED IS BACK-ORDERED  
CL= QTY NOT SHIPPED WAS CANCELLED  
SC= ITEM CONSIDERED COMPLETE - NO B/O CREATED

FILL PACK DATE 10/10/12  
Printed on 2012-10-09 at 12:40